

DETAILED ACTION

1. The Amendment filed on May 19, 2009 has been entered. Claims 1-3, 7, 8 and 18-21 have been amended. Claim 6 has been cancelled.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1, 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durrance et al. (US 20020002358), as evidenced by Morman (US 5226992), and further in view of Schneider et al. (US 20040238105), Nakakado et al. (US 6748996), Nease et al. (US 5705013) and Guevara et al. (US 6086571).

As to claim 1, Durrance et al. (Durrance) discloses a method of forming a diaper with side panels (Abstract; Fig. 1). As seen in Fig. 1 below, individual fastener strips (118) are cut from webs of fastener material (116), rotated 90 degrees, spaced apart from one another, and then laminated to a web of body side liner material (104) (Fig. 1; paragraphs 110-112). The bond between the side panels and the body side liner material may be formed by ultrasonic, thermal, or adhesive bonders (paragraph 116).

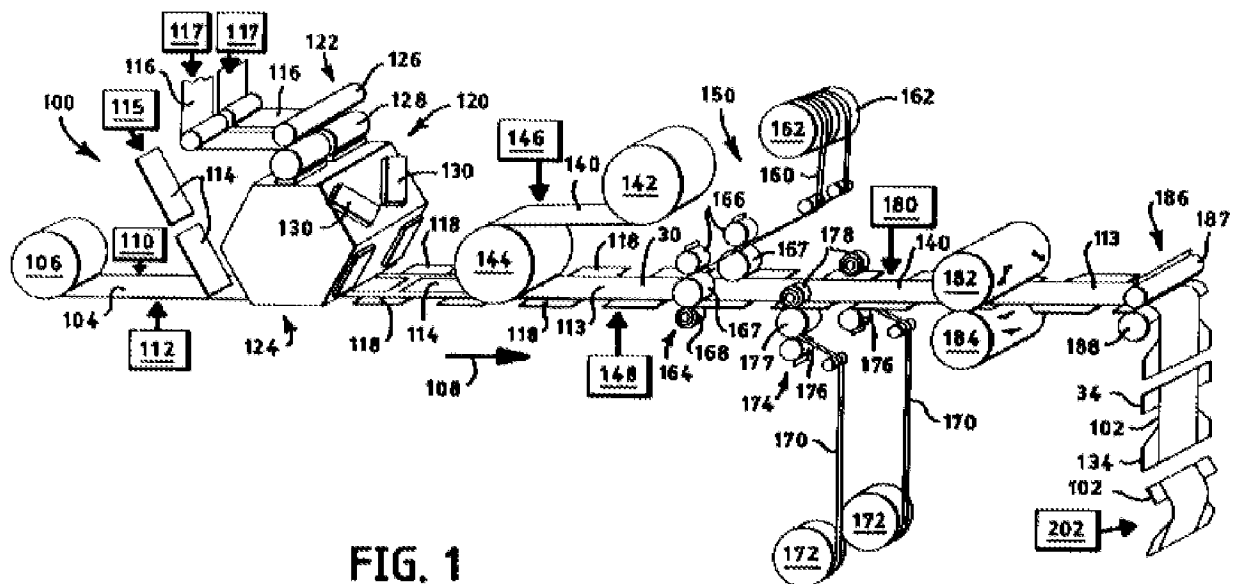


FIG. 1

Durrance discloses that the webs of fastener material (116) may comprise of an elastic material such as a neck-bonded laminate (NBL) (paragraph 94), such as the NBL material formed by the method of Mormon (US 5226992) cited in the specification (Id.). Mormon discloses a method of making NBL material wherein an elastic material is bonded to at least one neckable material (Abstract). Mormon discloses one embodiment of a neck bonded material wherein an elastic material (72) is sandwiched between two neckable material layers (52, 82) by feeding said elastic material between the neckable layers (52, 82) to obtain a laminate (Fig. 3; column 9, line 54 – column 10, line 27).

Durrance fails to disclose whether the elastics in the side panel material may comprise of elastic threads. Schneider et al. (Schneider) disclose a method of making elastic laminates (Abstract). Schneider teaches that although elastic films and elastic threads are functional equivalents, elastic threads are preferred since threads require

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less material and provide flexibility in arrangement and stretch properties (paragraph 3). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the method of Durrance to include elastic threads in the laminate, and would have been motivated to do so because Schnieder teaches that elastic threads require less material and provide flexibility in arrangement and stretch properties.

Durrance fails to disclose whether the side panel material (116) may comprise of a material that has intermittent elastic sections. Nakakado et al. (Nakakado) discloses a method for producing a web of material with intermittent elastic sections (Abstract). Nakakado discloses that the method comprises of: supplying an elastic member (elastic threads); stretching the elastic member; placing the stretched elastic member so that the elastic member spreads across a plurality of first webs divided in a transport direction; making a part of a second web loose in the transport direction while transporting the second web, thereby forming a loose portion; placing the first webs, on which the elastic member is disposed, on non-loose portions before and after the loose portion of the second web; and cutting the elastic member between adjacent first webs of the plurality of first webs (Fig. 14; column 11, lines 43-65). When the absorbent core is attached to the side panel material, the elastics in the side panel material may exert forces onto the absorbent core in areas of overlap (column 12, lines 48-65). Nakakado teaches that it is advantageous to form intermittent elastic areas in the side panel web so that the absorbent core of the diaper is not stretched or shrunk, thereby deteriorating the comfort of the wearer (Id.). It would have been obvious for one of ordinary skill in the art to incorporate the web forming method of Nakakado into the method of Durrance

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because one of ordinary skill in the art would recognize the comfort advantages of forming intermittent elastics in the side panel of the diaper and eliminating elastics in areas of overlap between the absorbent core and the side panels.

Furthermore, applying elastics intermittently and only in required areas of the product to be formed allows for material and cost savings in the process. It would have been obvious for one of ordinary skill to incorporate the elastic web forming method of Nakakado into the method of Durrance because one of ordinary skill would recognize the economic benefits of applying the elastic intermittently as in the method of Nakakado.

The above references as combined fail to specifically disclose that the non-contractile portion of side panel is attached to the body member to bond said side panel to the body portion. It is the position of the Examiner that bonding the side panel to the body portion through the non-contractile portion of the panel is well known in the art would have been obvious to one of ordinary skill at the time of the invention. Examples of this are seen in the references of Nease et al. (US 5705013) (Fig. 1) and Guevara et al. (US 6086571) (Fig. 6A). It would be desirable for the point of contact/bonding for the side panel to be non-stretchable so that when the side fasteners are pulled and stretched for proper fitting around a wearer, the side panel material bonded to the body member doesn't move or adjust its position, thereby weakening or breaking the adhesive bond formed between the side panel and the body member. One of ordinary skill in the art would recognize the bonding advantages offered by attaching a side

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panel to a body member through its non-stretchable portion and would have incorporated this into the method of the above references as combined.

As to claim 4, the method of claim 1 is taught as seen above. Durrance teaches that the side panels may be trimmed, but not trimming of said panels is not required (paragraph 124).

As to claim 5, the method of claim 1 is taught as seen above. Durrance discloses that each panel includes at least one fastening element (Fig. 7), and that said fastening elements (160, 170) may be attached to the side panel material prior to forming individual side panels or after said panels are formed and attached to the body member as shown in Fig. 1 above (paragraph 121).

As to claim 7, the method of claim 1 is taught as seen above. The method of Mormon discloses that the elastic and neckable materials are laminated in an extended state to where the neckable material forms gathers.

4. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNichols (US 6667085) as evidenced by Morman (US 5226992), in view of Schneider et al. (US 20040238105) and Nease et al. (US 5705013).

As to claim 2, McNichols discloses a method of making absorbent articles with side panels attached to the waist region of said article (Abstract). As seen in Fig. 1 below, the method comprises of: cutting an elastic laminate (110) along a wave shaped cut-off line to form two laminates; the laminates are then rotated 90 degrees relative to the flow direction and separated from one another in a cross/width direction; the two

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laminates are then cut in a predetermined interval in the flow direction by an cutting apparatus (112); and thereafter attached to each side of a web of interconnected diapers (80) (column 7, lines 4-20).

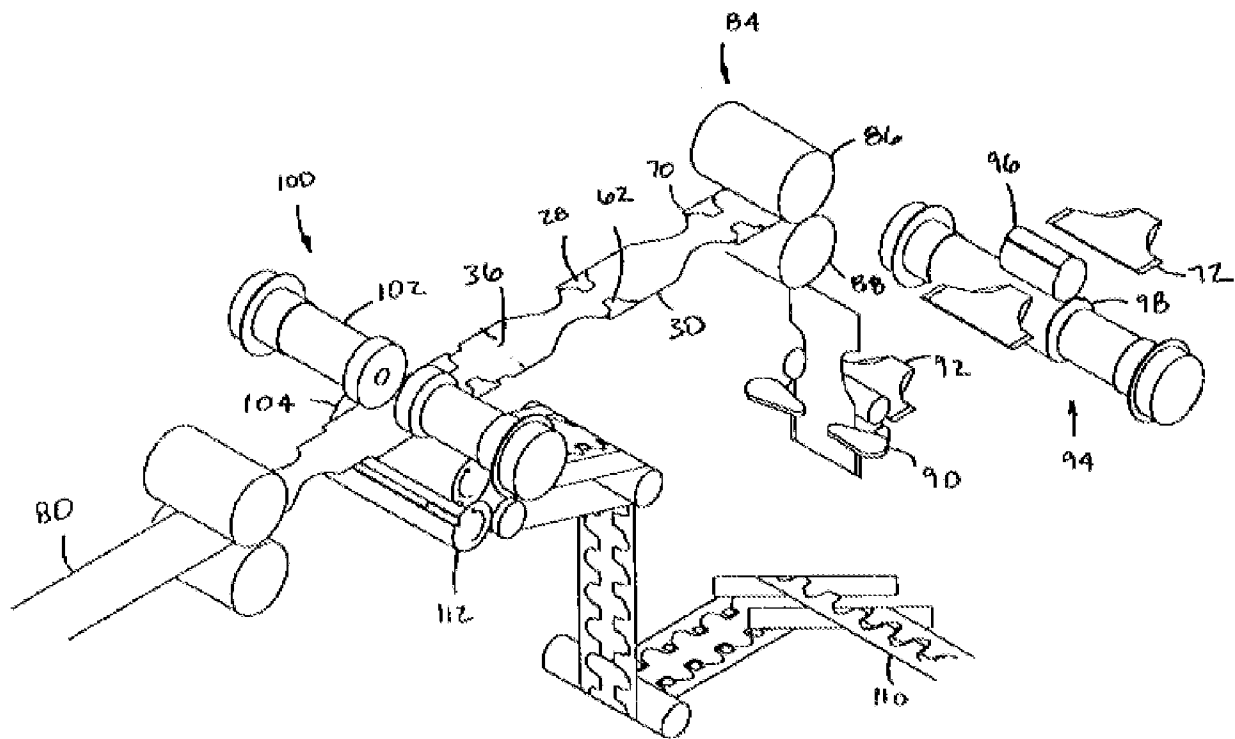


FIG. 1

McNichols discloses that the webs of fastener material (110) may comprise of an elastic material such as a neck-bonded laminate (NBL) (column 13, lines 25-41), such as the NBL material formed by the method of Mormon (US 5226992) cited in the specification (Id.). Mormon discloses a method of making NBL material wherein an elastic material is bonded to at least one neckable material (Abstract). Mormon discloses one embodiment of a neck bonded material wherein an elastic material (72) is

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sandwiched between two neckable material layers (52, 82) by feeding said elastic material between a the neckable layers (52, 82) to obtain a laminate (Fig. 3; column 9, line 54 – column 10, line 27).

McNichols fails to disclose whether the elastics in the side panel material may comprise of elastic threads. Schneider et al. (Schneider) disclose a method of making elastic laminates (Abstract). Schneider teaches that although elastic films and elastic threads are functional equivalents, elastic threads are preferred since threads require less material and provide flexibility in arrangement and stretch properties (paragraph 3). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the method of McNichols to include elastic threads in the laminate, and would have been motivated to do so because Schnieder teaches that elastic threads require less material and provide flexibility in arrangement and stretch properties.

If it is found that McNichols doesn't specifically disclose cutting the web in a flow direction to form two laminate webs, it is the position of the Examiner that it is well known in the art to slit a single web of fastener material in a flow direction to form two webs of fastener material to apply to a diaper chassis web. Nease et al. (Nease) discloses a zero scrap method for manufacturing side panels for use with absorbent articles (Abstract). Nease discloses a method wherein a web of fastener material (201) is cut along a wave-shaped line (604) in the flow direction to produce a first (700) and second laminate (701) and there after said laminates are cut at a predetermined interval in the flow direction to obtain first and second cut panels (130) (Fig. 7; column 9, line 54 – column 11, line 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Nease into the method of McNichols because one of ordinary skill would have recognized the economic advantages of utilizing a zero-scrap method of producing side panels as taught by Nease.

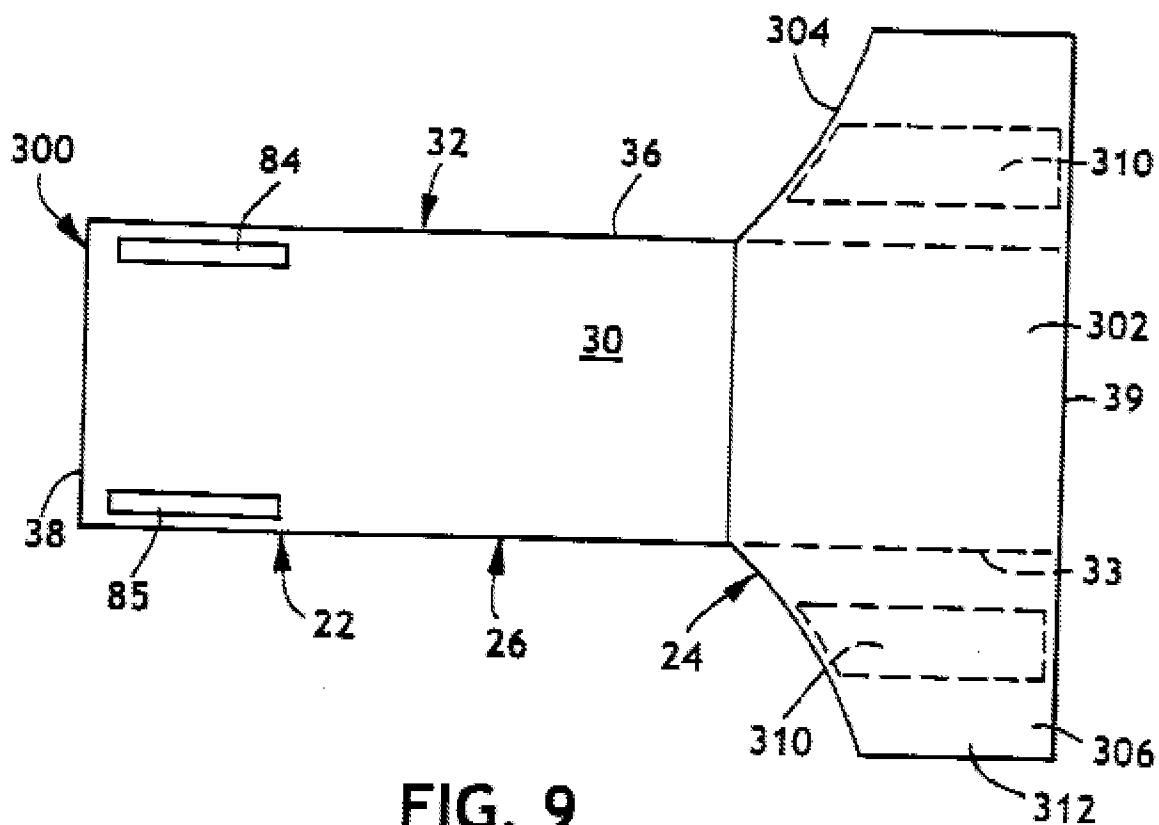
As to claim 14, the method of claim 2 is taught as seen above. The method of the above references as combined would form side panels without trimming.

5. Claims 3, 8-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (US 6645190) in view of Schneider et al. (US 20040238105), Nease et al. (US 5705013) and Pohjola (US 5224405).

As to claims 3, 8 and 9, Olson discloses a method of making a diaper with side panels (Abstract). As seen in Fig. 9 below, Olson discloses that the diaper is formed by

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attaching a panel member (302) to the composite structure (30) (Fig. 9; column 17, lines 13-28). The panel member has elastic members (10) sandwiched between the facing layers (312, 314) (Fig. 10; column 17, lines 29-48). Olson further discloses that the panel member is stretchable in a direction parallel to the transverse axis (49) of the training pant (Fig. 3; column 13, lines 45-48), which makes the panel member to stretch around the waist of the wearer.

**FIG. 9**

Olson discloses that elastic material of the panel member (302) may be formed by known methods in the art, such as the NBL material formed by the method of

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Mormon (US 5226992) cited in the specification (column 14, lines 8-29). Mormon discloses a method of making NBL material wherein an elastic material is bonded to at least one neckable material (Abstract). Mormon discloses one embodiment of a neck bonded material wherein an elastic material (72) is sandwiched between two neckable material layers (52, 82) by feeding said elastic material between a the neckable layers (52, 82) to obtain a laminate (Fig. 3; column 9, line 54 – column 10, line 27).

Olson fails to disclose whether the elastics in the side panel material may comprise of elastic threads. Schneider et al. (Schneider) disclose a method of making elastic laminates (Abstract). Schneider teaches that although elastic films and elastic threads are functional equivalents, elastic threads are preferred since threads require less material and provide flexibility in arrangement and stretch properties (paragraph 3). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify the method of Olson to include elastic threads in the laminate, and would have been motivated to do so because Schnieder teaches that elastic threads require less material and provide flexibility in arrangement and stretch properties.

Olson fails to disclose the specific method utilized in forming the side panel (302) from the web of elastic material in the method of Mormon. Nease et al. (Nease) discloses a zero scrap method for manufacturing side panels for use with absorbent articles (Abstract). As seen in Fig. 7 below, Nease discloses a method wherein a web of fastener material (201) is cut along a wave-shaped line (604) in the flow direction to produce identical first (700) and second laminate (701) webs and there after said laminate webs are cut at a predetermined interval in the flow direction to obtain first and

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second cut panels (130); thereafter said panels are bonded to a diaper web/composite structure (205) (Fig. 7; column 9, line 54 – column 11, line 14). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Nease into the method of Olson because one of ordinary skill would have recognized the economic advantages of utilizing a zero-scrap method of producing side panels as taught by Nease.

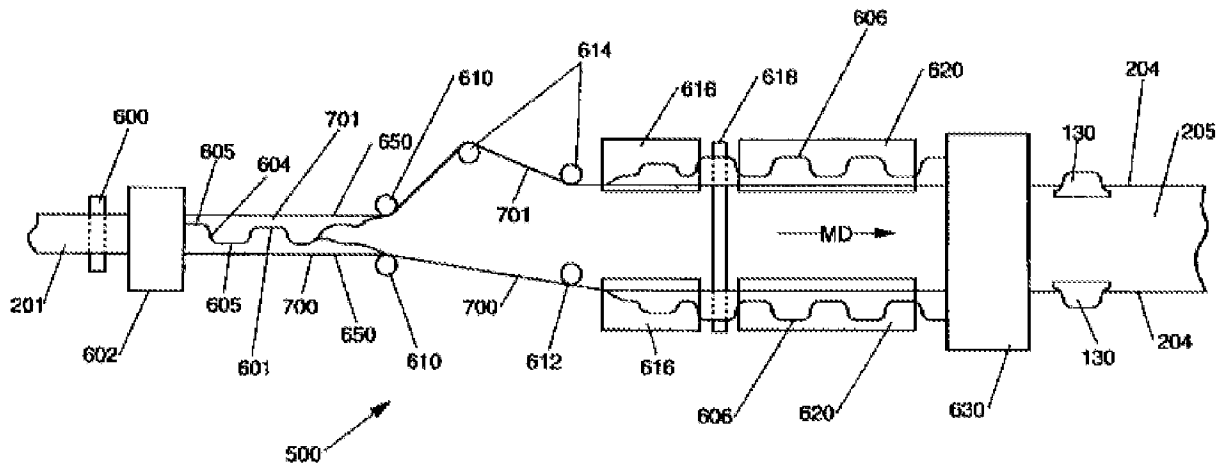


Fig. 7

Incorporating the teachings of Nease into the method of Olson would result in two identical laminate webs, when cut at a predetermined interval in the flow direction would form identical panel members (302) in the opposite orientation relative to one another, first and second panels on one side, third and fourth panels on the opposite side. Therefore, before applying the panel members (302) to the composite structure (30), said panels would need to be rotated 90 degrees relative to the flow direction. It is the position of the Examiner that methods of rotating and applying a discrete material member to a web of material is well known in the art and would have been obvious to

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one of ordinary skill at the time of the invention. Pohjola discloses a method and apparatus for cutting strips of material (18) from a web (12), holding and rotating said strips 90 degrees on a transfer roll (28), and placing/laminating said strips onto a moving second web of material (14) (Fig. 1; column 3, lines 7-53). It would have been obvious for one of ordinary skill at the time of the invention to incorporate a known successful method of rotating and placing a discrete side article onto web of material, such as the method of Pohjola, into the method of Olson because such a modification would have been well within his technical grasp.

As to claim 10, the method of claim 8 is taught as seen above. It would have been obvious for one of ordinary skill in the art to align the first and second laminates in the same phase to allow for a process to apply panel members to two webs of composite structures at the same time, doubling the through-put of the process.

As to claim 15, the method of claim 3 is taught as seen above. The method of the above references as combined would form side panels without trimming.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over McNichols (US 6667085) as evidenced by Morman (US 5226992), Schneider et al. (US 20040238105) and Nease et al. (US 5705013), as applied to claim 2 above, and further in view of Roessler et al. (US 5399219).

McNichols is silent as to whether the primary fastener material (62) on the web of side panels (110) is cut when web is cut so that each side panel (28) has fastener material (62). It is the position of the examiner that applying a single strip of fastening

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material to the longitudinal center to a web of side panel material, and subsequently cutting the web to form identical side panels is well known in the art and would have been obvious to one of ordinary skill at the time of the invention. Roessler et al. discloses a method of forming side panels wherein a fastening material is applied down the center of a web of side panel material so that when the web is cut into identical side panel webs, each side panel has fastening material (Fig. 4). It would have been obvious for one of ordinary skill in the art to incorporate a known method of forming side panel webs with fasteners, such as the method of Roessler, into the method of McNichols because such a modification would have been within his technical grasp.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (US 6645190), Schneider et al. (US 20040238105), Nease et al. (US 5705013) and Pohjola (US 5224405) as applied to claim 3 above, and further in view of Surprise et al. (US 6174303).

Olson discloses that the material on the outer surface of the side panel member (302) releasably attaches with fastening members (84, 85) on the body of the diaper in order to create a desired fit on the wearer (Fig. 9), but fails to disclose whether a fastening material could be attached to the side panel member (302) to form a dual fastening system. Surprise et al. (Suprise) discloses a disposable article with a dual fastening system (Abstract; Fig. 1). Surprise discloses that the fastening system (60) comprises of a set of primary fasteners (62, 64) on the back waist flaps wherein primary fasteners releasably engage with the outer cover (28) of the front waist area and a set

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of secondary fasteners (66, 68) on the front waist flaps wherein secondary fasteners engage with the inner surface of the rear waist area (36) (Fig. 1-3; column 13, lines 5-64). Surprise teaches that the use of the secondary fasteners provide improved securement of the diaper about the waist of the wearer and provides additional support to maintain the absorbent chassis in contact with the wearer (column 13, lines 42-47).

It would have been obvious to incorporate the teachings of Surprise et al. into the method of the above references combined and use a dual fastening system for the diaper because Surprise teaches that a dual fastening system provides improved diaper fit as well as additional support for the absorbent chassis.

It is the position of the Examiner that it is well known in the art to attach a fastening material on a web of material wherein the fastening material straddles a cut line between individual components, so that when said cut is made, each component has section of fastening material, and would have been obvious to one of ordinary skill at the time of the invention.

8. Claim 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNichols (US 6667085) as evidenced by Morman (US 5226992), Schneider et al. (US 20040238105), Nease et al. (US 5705013), as applied to claim 2 above, and further in view of Nakakado et al. (US 6748996).

The references as combined fail to disclose whether the side panel material (116) may comprise of a material that has intermittent elastic sections. Nakakado et al. (Nakakado) discloses a method for producing a web of material with intermittent elastic

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sections (Abstract). Nakakado discloses that the method comprises of: supplying an elastic member (elastic threads); stretching the elastic member; placing the stretched elastic member so that the elastic member spreads across a plurality of first webs divided in a transport direction; making a part of a second web loose in the transport direction while transporting the second web, thereby forming a loose portion; placing the first webs, on which the elastic member is disposed, on non-loose portions before and after the loose portion of the second web; and cutting the elastic member between adjacent first webs of the plurality of first webs (Fig. 14; column 11, lines 43-65). When the absorbent core is attached to the side panel material, the elastics in the side panel material may exert forces onto the absorbent core in areas of overlap (column 12, lines 48-65). Nakakado teaches that it is advantageous to form intermittent elastic areas in the side panel web so that the absorbent core of the diaper is not stretched or shrunk, thereby deteriorating the comfort of the wearer (Id.). It would have been obvious for one of ordinary skill in the art to incorporate the web forming method of Nakakado into the method of the above references as combined because one of ordinary skill in the art would recognize the comfort advantages of forming intermittent elastics in the side panel of the diaper and eliminating elastics in areas of overlap between the absorbent core and the side panels.

Furthermore, applying elastics intermittently and only in required areas of the product to be formed allows for material and cost savings in the process. It would have been obvious for one of ordinary skill to incorporate the elastic web forming method of Nakakado into the method of McNichols because one of ordinary skill would recognize

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the economic benefits of applying the elastic intermittently as in the method of Nakakado.

9. Claim 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson (US 6645190), Schneider et al. (US 20040238105), Nease et al. (US 5705013) and Pohjola (US 5224405) as applied to claim 3 above, and further in view of Nakakado et al. (US 6748996).

The references as combined fail to disclose whether the side panel member (302) may comprise of a material that has intermittent elastic sections. Nakakado et al. (Nakakado) discloses a method for producing a web of material with intermittent elastic sections (Abstract). Nakakado discloses that the method comprises of: supplying an elastic member (elastic threads); stretching the elastic member; placing the stretched elastic member so that the elastic member spreads across a plurality of first webs divided in a transport direction; making a part of a second web loose in the transport direction while transporting the second web, thereby forming a loose portion; placing the first webs, on which the elastic member is disposed, on non-loose portions before and after the loose portion of the second web; and cutting the elastic member between adjacent first webs of the plurality of first webs (Fig. 14; column 11, lines 43-65). When the absorbent core is attached to the side panel material, the elastics in the side panel material may exert forces onto the absorbent core in areas of overlap (column 12, lines 48-65). Nakakado teaches that it is advantageous to form intermittent elastic areas in the side panel web so that the absorbent core of the diaper is not stretched or shrunk,

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thereby deteriorating the comfort of the wearer (Id.). It would have been obvious for one of ordinary skill in the art to incorporate the web forming method of Nakakado into the method of the above references as combined because one of ordinary skill in the art would recognize the comfort advantages of forming intermittent elastics in the side panel of the diaper and eliminating elastics in areas of overlap between the absorbent core and the side panels.

Furthermore, applying elastics intermittently and only in required areas of the product to be formed allows for material and cost savings in the process. It would have been obvious for one of ordinary skill to incorporate the elastic web forming method of Nakakado into the method of the above references as combined because one of ordinary skill would recognize the economic benefits of applying the elastic intermittently as in the method of Nakakado.

Response to Arguments

10. Applicant's arguments filed May 19, 2009 have been fully considered but they are moot in view of the new ground(s) of rejection.

Applicant argues in section II of the Remarks, in regard to the rejection of claims 2 and 14, that McNichols fails to disclose changing an attitude of each cut panel by a rotation of about 90 degrees with respect to the flow direction of the laminate from which the panels were cut. Applicant further contends that McNichols merely discloses changing the direction of the flow of webs instead of changing the direction of the panels with respect to the flow direction of the webs. Examiner points out that

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Applicant's claimed limitation of "changing the attitude of each cut panel to an attitude that is obtained by a rotation of about 90 degrees with respect to the flow direction" is significantly broad enough to encompass references which disclose a change in the orientation of the webs for proper registration with a body laminate web, as disclosed by McNichols. The flow direction of the side panels are changed relative to the original flow direction of the webs for lamination to a body member, just as the flow direction of the side panels in the method disclosed by Applicant is changed relative to the original flow direction of side panel web for registration with the body member web.

Applicant argues in section IV of the Remarks, in regard to claims 3, 8-10 and 15, that the combination of the method/apparatus of Pohjola with the methods of Olson and Nease fail to disclose a side panel that would shrink in the "flow direction". Examiner points out that "flow direction" is relative to the location and vector of the laminate in the process, and is not a patentably distinguishable limitation over the prior art of record. The apparatus/method of Pohjola would cut and attach the laminate of Olson and Nease to a web of body members so that the panels are stretchable along the transverse axis (49) of Olson, i.e., the waist of the wearer; the same direction that Applicant's side panels stretch when attached in the finished diaper product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER C. CAILLOUET whose telephone

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number is (571)270-3968. The examiner can normally be reached on Monday - Thursday; 9:30am-4:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher C Caillouet/
Examiner, Art Unit 1791

/Mark A Osele/
Primary Examiner, Art Unit 1791
June 5, 2010